IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: U.S. Patent No. 7,555,079

USPTO CONFIRMATION CODE: 1771

APPLICATION NO.: 10/534,923

PCT FILED: October 09, 2003

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EXAMINER: Mohammad H Ghayour

GROUP ART UNIT: 2611

FOR: METHOD AND CORRESPONDING ARRANGEMENT FOR DC OFFSET COMPENSATION USING CHANNEL ESTIMATION

37 CFR 1.322 & 37 CFR 1.323 REQUEST FOR CERTIFICATE OF CORRECTION FOR USPTO AND/OR APPLICANT MISTAKE

HONORABLE COMMISSIONER OF PATENTS & TRADEMARKS

SIR:

The following is a request for a certificate of correction in Serial Number 10/534,923, now Patent Number 7,555,079.

A certificate of correction under 35 USC 254 is respectfully requested in the above-identified patent.

All errors were the fault of the USPTO, no fee required. In the event that a further fee is required, please charge the amount to our Deposit Account No. 50-1379.

The exact locations where the errors appear in the patent and patent application are as follows:

On the Face Page, in Field (56), under "FOREIGN PATENT DOCUMENTS", in Column 2, Line 1, delete "DE 19606102 8/1997". (LIST OF REFERENCES CITED BY APPLICANT AND CONSIDERED BY EXAMINER DATED SEPTEMBER 4, 2008, SHEET 1 OF 1 (PAGE 54 OF FW), UNDER "FOREIGN PATENT DOCUMENTS", ENTRY 1)

In Column 8, Line 2, delete "roation" and insert - - rotation - -, therefor. (ORIGINALLY FILED SPECIFICATION DATED MAY 10, 2005, PAGE 14, LINE 9)

In Column 11, Line 4, delete "$\epsilon^2(p,m)=\alpha^m(|r|^2-16\hat{h}_{p,m}|^2)$, $\epsilon^2>0$.,," and insert - - $\epsilon^2(p,m)=\alpha^m(|r|^2-16|\hat{h}_{p,m}|^2)$, $\epsilon^2>0$. - -, therefor. (ORIGINALLY FILED SPECIFICATION DATED MAY 10, 2005, PAGE 19, LINE 31)

In Column 11, Line 38, delete "$a\in[0.8,0.9]$" and insert - - $a\in[0.8,0.9]$ - -, therefor. (ORIGINALLY FILED SPECIFICATION DATED MAY 10, 2005, PAGE 20, LINE 30)

In Column 11, Line 40, after "preferably the" insert - - parameters a and b are selected according to the time scale of the variation in the delay spread.

The aperture of the equalizer span optimization is then determined as:

$$m_l = \text{round}(m_s(t\text{-}1)) - A,\ m_l \geq m_{min}$$
$$m_u = \text{round}(m_s(t\text{-}1)) + B,\ m_{max} \geq m_u,$$

i.e. m_l and m_u are lower and upper bounds, respectively, of an interval around m_s. The constants A and B determine the width of the aperture. For example, A=B=1 yields an aperture that is 2-3 taps wide.

The constant upper and lower limits m_{max} and m_{min} ensure that m_l and m_u lie within desired limits, e.g. $m_{min} = 4$ corresponding to typical urban (TU), and $m_{max} = 8$ corresponding to hilly terrain (HT).

This embodiment has the advantage that no assumption has to be made about the precise channel delay spread, thereby improving the performance of the synchronization and the subsequent equalization.

It is a further advantage of this embodiment that the channel estimate provided by this synchronization method is robust against DC offsets, thereby providing a good input for the DC offset estimation.

It is noted that in connection with an EDGE receiver, it is preferred to combine the receiver filter with a noise whitening filter in order to suppress interferences and, thus, to avoid the necessity of a narrow receiver filter.

The invention has primarily been described in connection with GSM/EDGE training symbols. However, the invention is not limited to GSM/EDGE, but may

be applied to signal bursts of other communications schemes which utilize suitable training sequences for burst synchronization. - -.
(ORIGINALLY FILED SPECIFICATION DATED MAY 10, 2005, PAGE 21, LINE 1-32)

The requested corrections are attached on Form PTO 1050.

Respectfully Submitted

October 12, 2009

/SIDNEY L. WEATHERFORD,Reg#45602/

DATE

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